9. Schematic Diagrams

9-1 DC/DC Converter (Main) - - - - - - - - - - - - - - - - - - - 9-2

9-2 System Control - 9-3

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Note

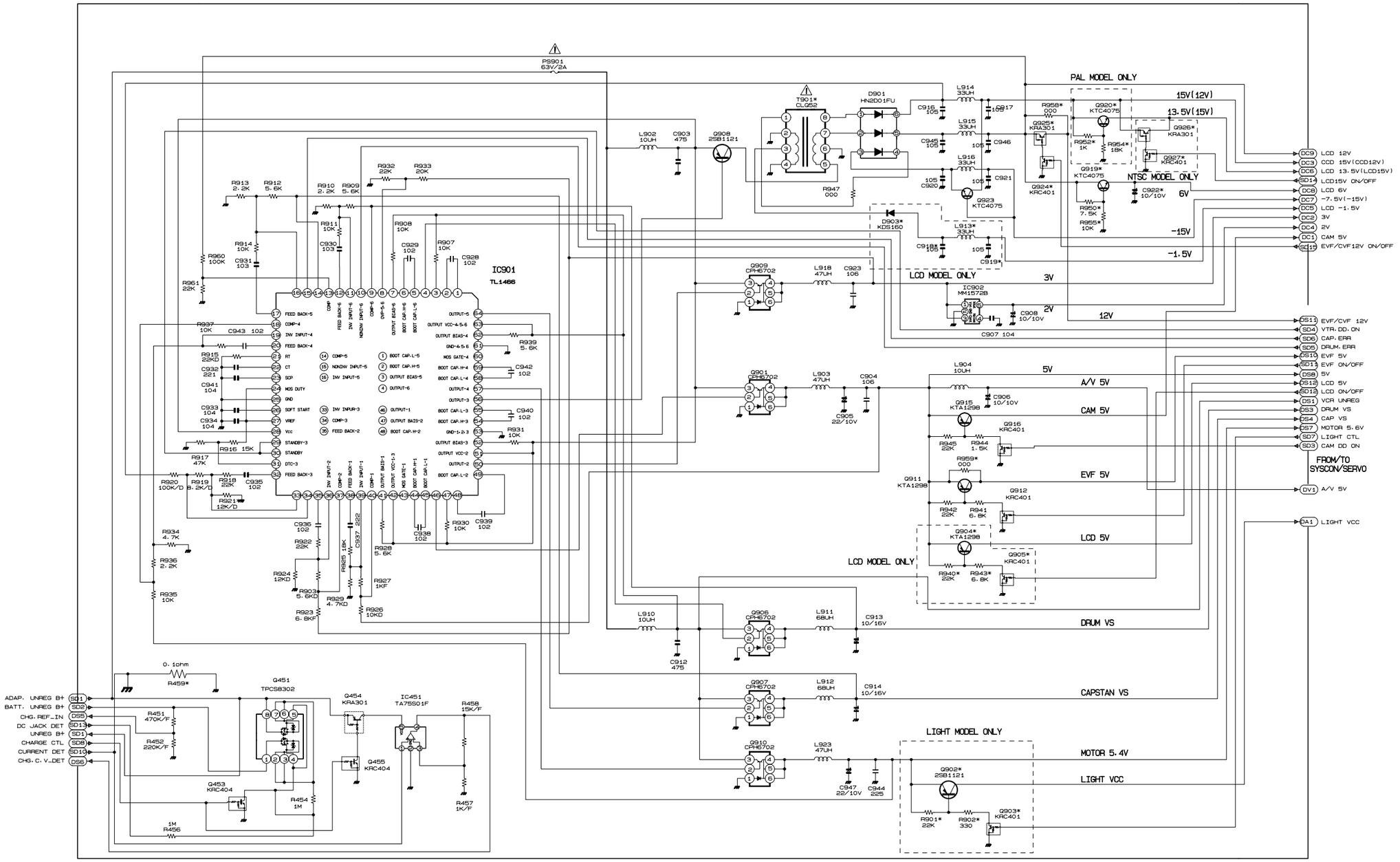
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.
- Circled numbers refer to waveforms.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the “electrostatically sensitive (ES) devices” section of this service manual.

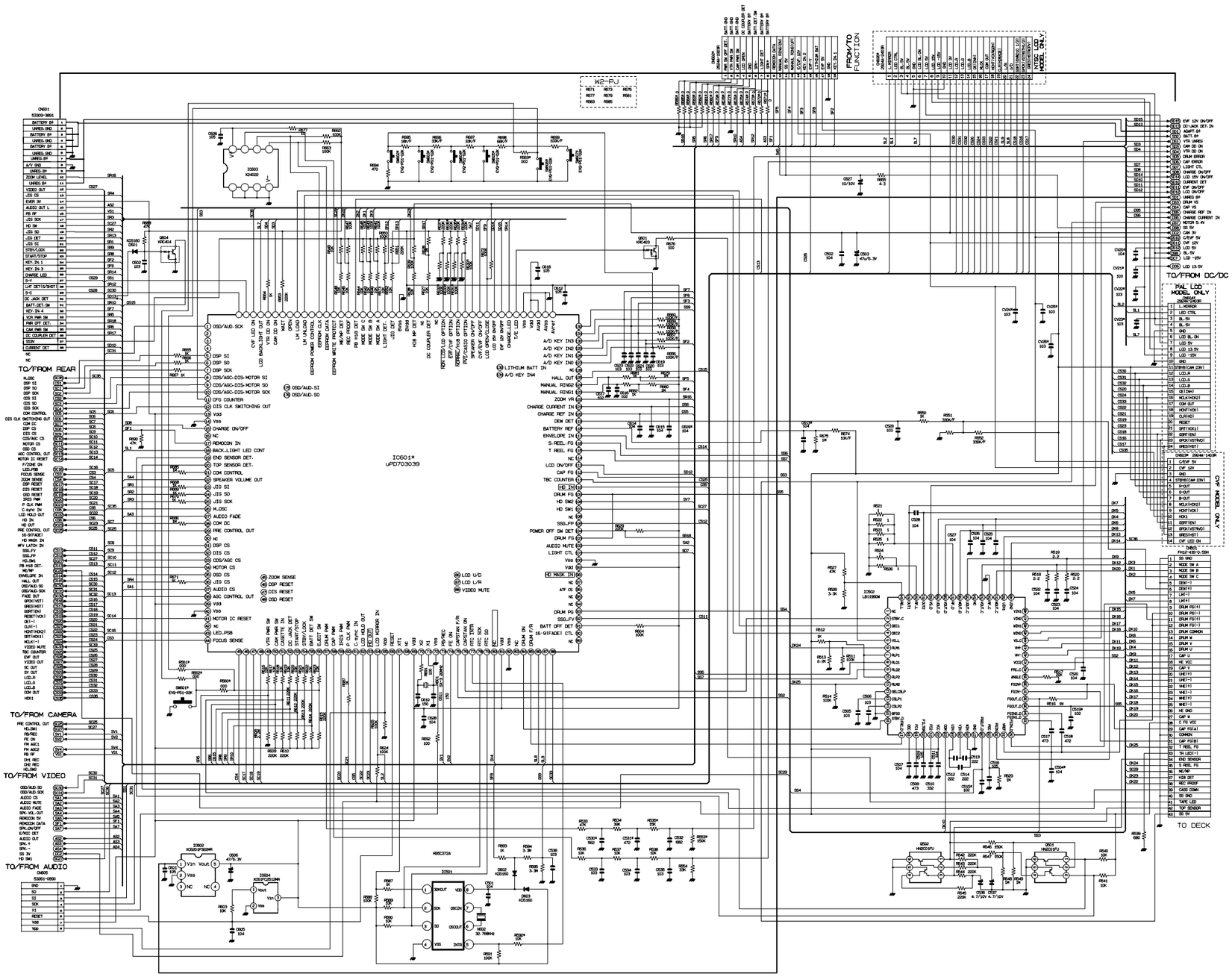
Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components. Use only the same type.

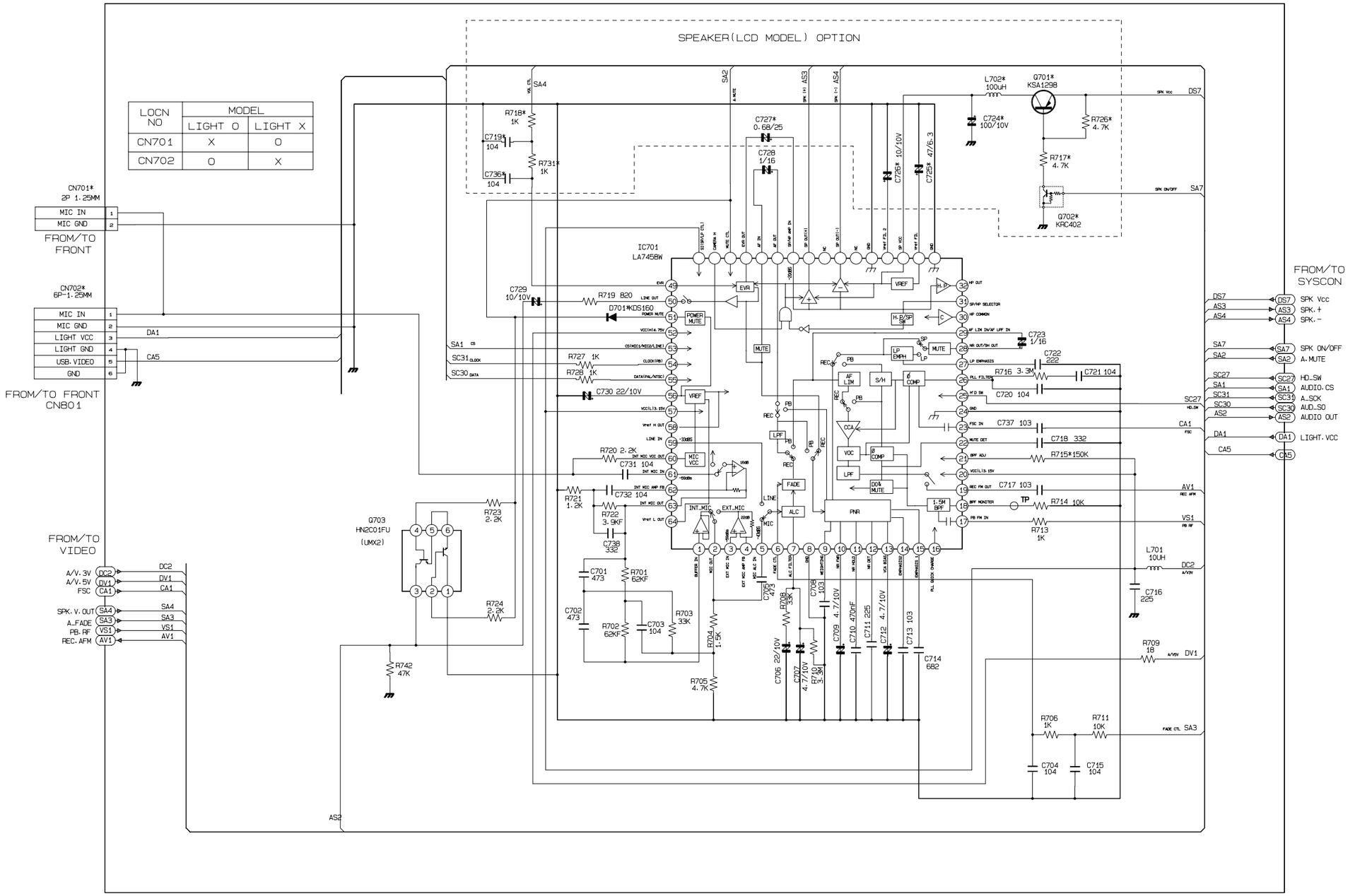
9-1 DC/DC Converter (Main)



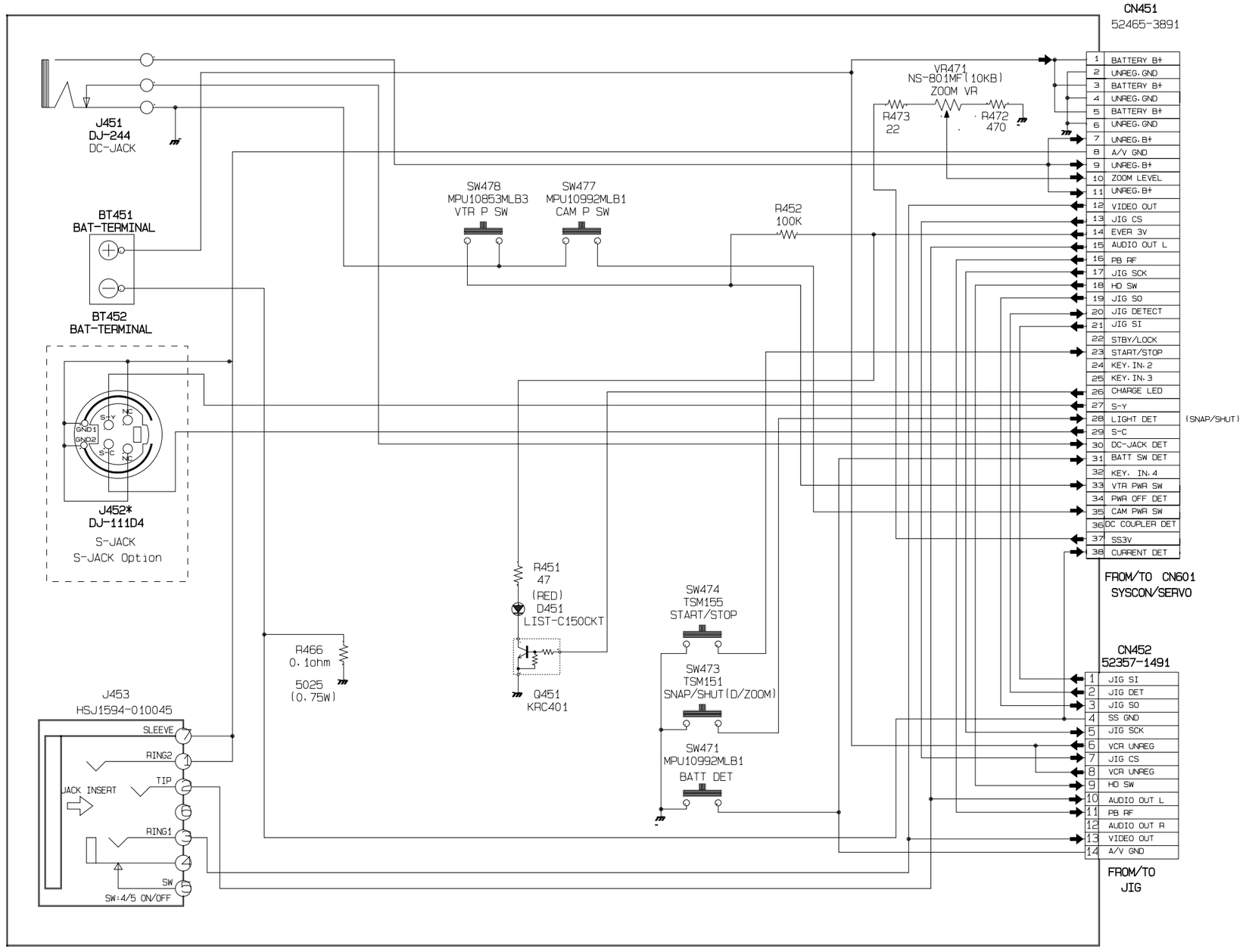
9-2 System Control (Main)



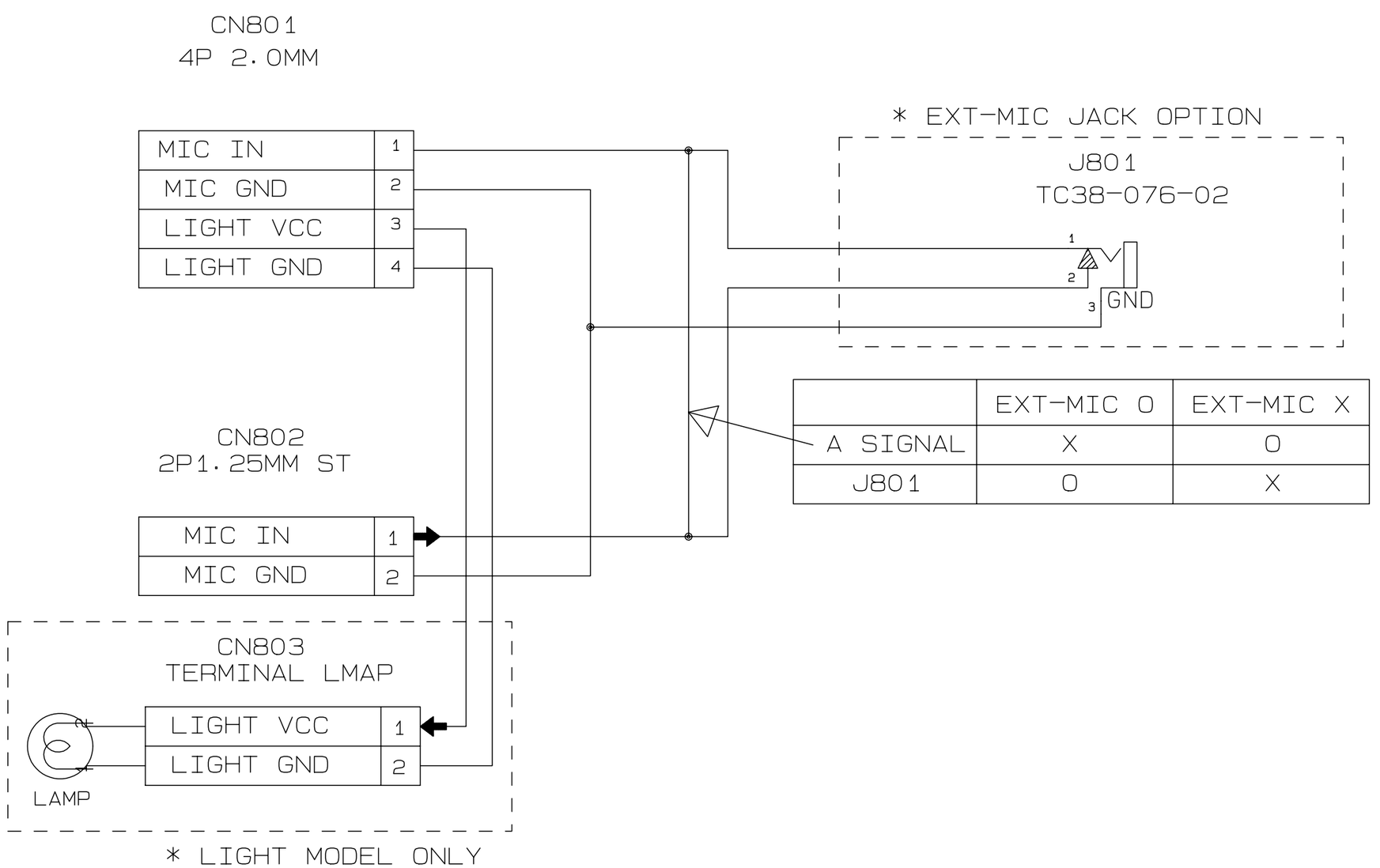
9-3 Audio (Main)



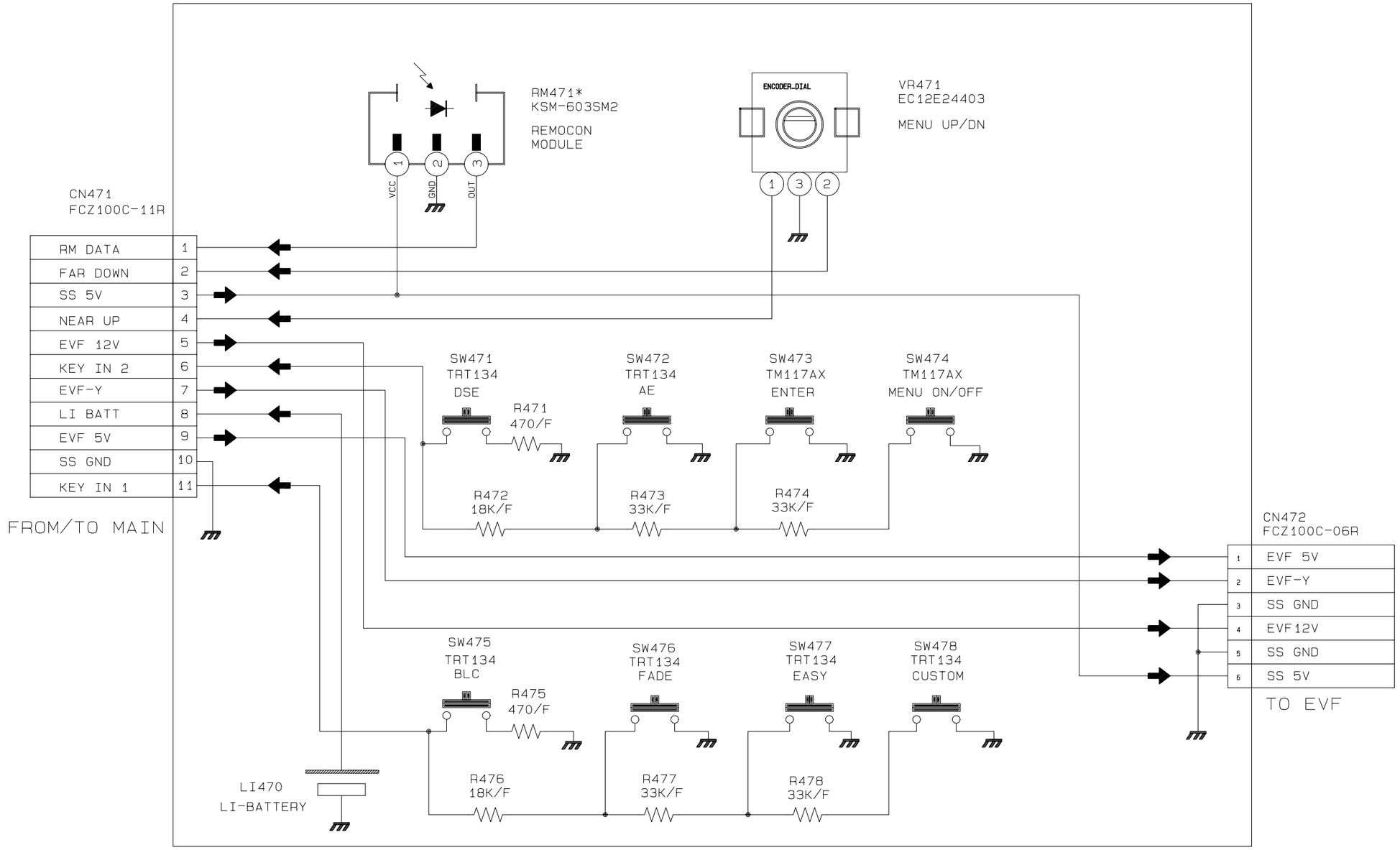
9-4 Rear


CN451
52465-3891
1 BATTERY B+
2 UNREG. GND
3 BATTERY B+
4 UNREG. GND
5 BATTERY B+
6 UNREG. GND
7 UNREG. B+
8 A/V GND
9 UNREG. B+
10 ZOOM LEVEL
11 UNREG. B+
12 VIDEO OUT
13 JIG CS
14 EVER 3V
15 AUDIO OUT L
16 PB RF
17 JIG SCK
18 HD SW
19 JIG SO
20 JIG DETECT
21 JIG SI
22 STBY/LOCK
23 START/STOP
24 KEY. IN. 2
25 KEY. IN. 3
26 CHARGE LED
27 S-Y
28 LIGHT DET (SNAP/SHUT)
29 S-C
30 DC-JACK DET
31 BATT SW DET
32 KEY. IN. 4
33 VTR PWR SW
34 PWR OFF DET
35 CAM PWR SW
36 DC COUPLER DET
37 SS3V
38 CURRENT DET
FROM/TO CN601
SYSCON/SERVO
VR471
NS-801MF(10KB)
ZOOM VR
R473
22
R472
470
J451
DJ-244
DC-JACK
BT451
BAT-TERMINAL
BT452
BAT-TERMINAL
SW478
MPU10853MLB3
VTR P SW
SW477
MPU10992MLB1
CAM P SW
R452
100K
J452*
DJ-111D4
S-JACK
S-JACK Option
GND1
GND2
S-Y
S-C
NC
NC
R451
47
(RED)
D451
LIST-C150CKT
Q451
KRC401
R466
0.1ohm
5025
(0.75W)
SW474
TSM155
START/STOP
SW473
TSM151
SNAP/SHUT(D/ZOOM)
SW471
MPU10992MLB1
BATT DET
J453
HSJ1594-010045
SLEEVE
RING2
TIP
JACK INSERT
RING1
SW
SW:4/5 ON/OFF
CN452
52357-1491
1 JIG SI
2 JIG DET
3 JIG SO
4 SS GND
5 JIG SCK
6 VCR UNREG
7 JIG CS
8 VCR UNREG
9 HD SW
10 AUDIO OUT L
11 PB RF
12 AUDIO OUT R
13 VIDEO OUT
14 A/V GND
FROM/TO
JIG

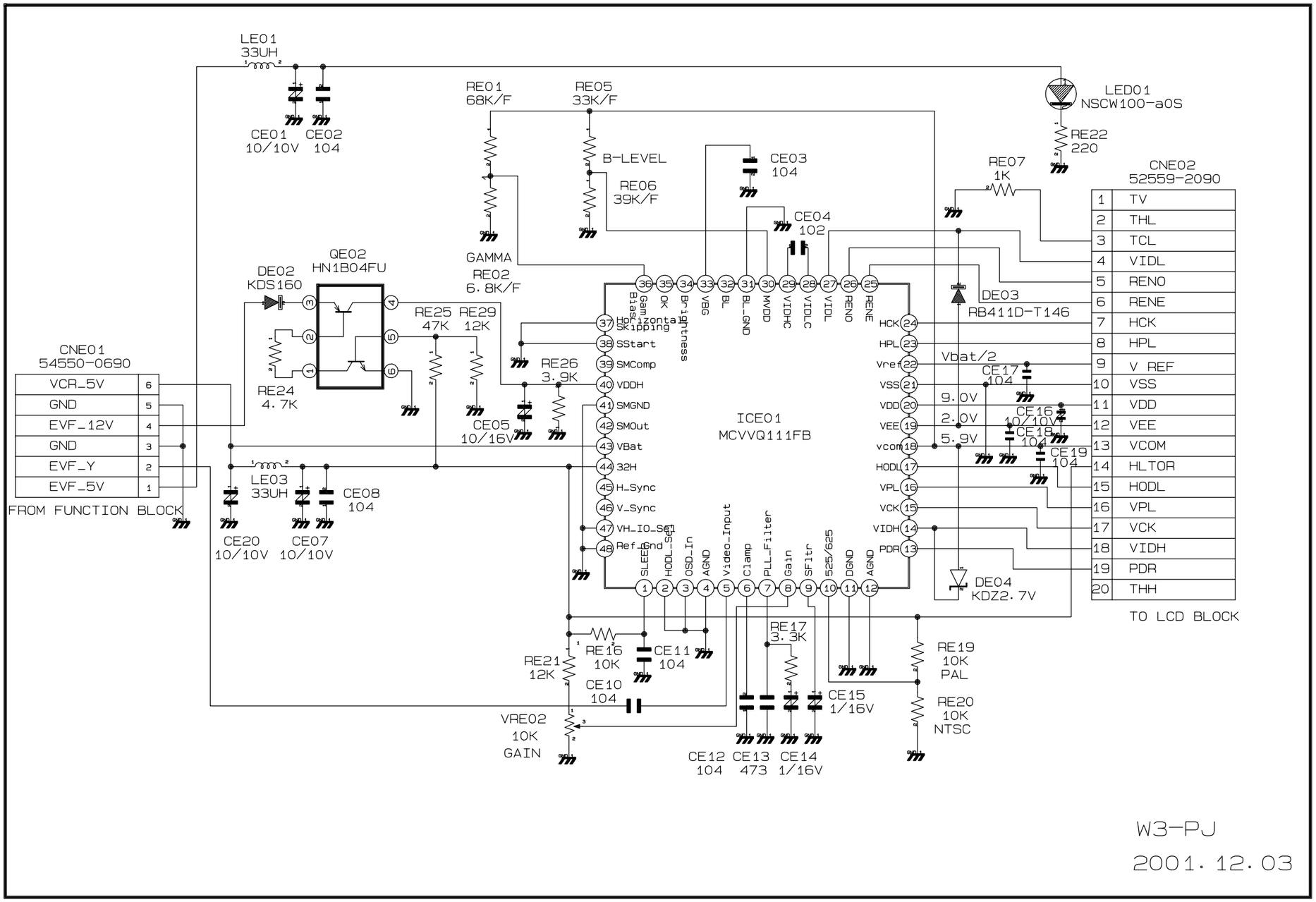
9-5 Front


CN801
4P 2.0MM
MIC IN 1
MIC GND 2
LIGHT VCC 3
LIGHT GND 4
* EXT-MIC JACK OPTION
J801
TC38-076-02
1
2
3
GND
EXT-MIC O
EXT-MIC X
A SIGNAL
X
O
J801
O
X
CN802
2P1.25MM ST
MIC IN 1
MIC GND 2
CN803
TERMINAL LMAP
LIGHT VCC 1
LIGHT GND 2
LAMP
* LIGHT MODEL ONLY

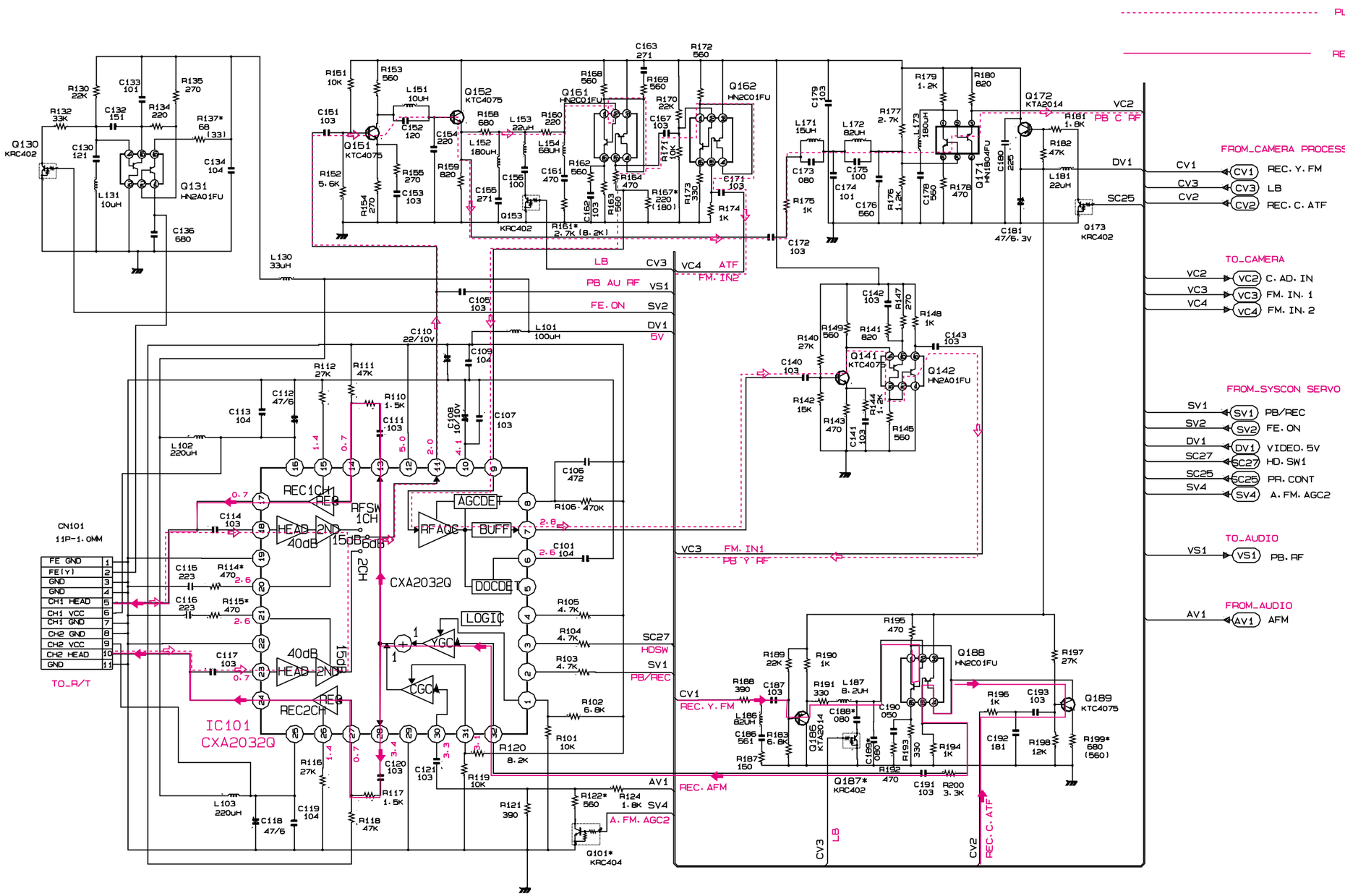
9-6 Function


RM471*
KSM-603SM2
REMOCON
MODULE
VCC
GND
OUT
ENCODER_DIAL
VR471
EC12E24403
MENU UP/DN
CN471
FCZ100C-11R
RM DATA 1
FAR DOWN 2
SS 5V 3
NEAR UP 4
EVF 12V 5
KEY IN 2 6
EVF-Y 7
LI BATT 8
EVF 5V 9
SS GND 10
KEY IN 1 11
FROM/TO MAIN
SW471
TRT134
DSE
SW472
TRT134
AE
SW473
TM117AX
ENTER
SW474
TM117AX
MENU ON/OFF
R471
470/F
R472
18K/F
R473
33K/F
R474
33K/F
SW475
TRT134
BLC
SW476
TRT134
FADE
SW477
TRT134
EASY
SW478
TRT134
CUSTOM
R475
470/F
R476
18K/F
R477
33K/F
R478
33K/F
LI470
LI-BATTERY
CN472
FCZ100C-06R
1 EVF 5V
2 EVF-Y
3 SS GND
4 EVF12V
5 SS GND
6 SS 5V
TO EVF

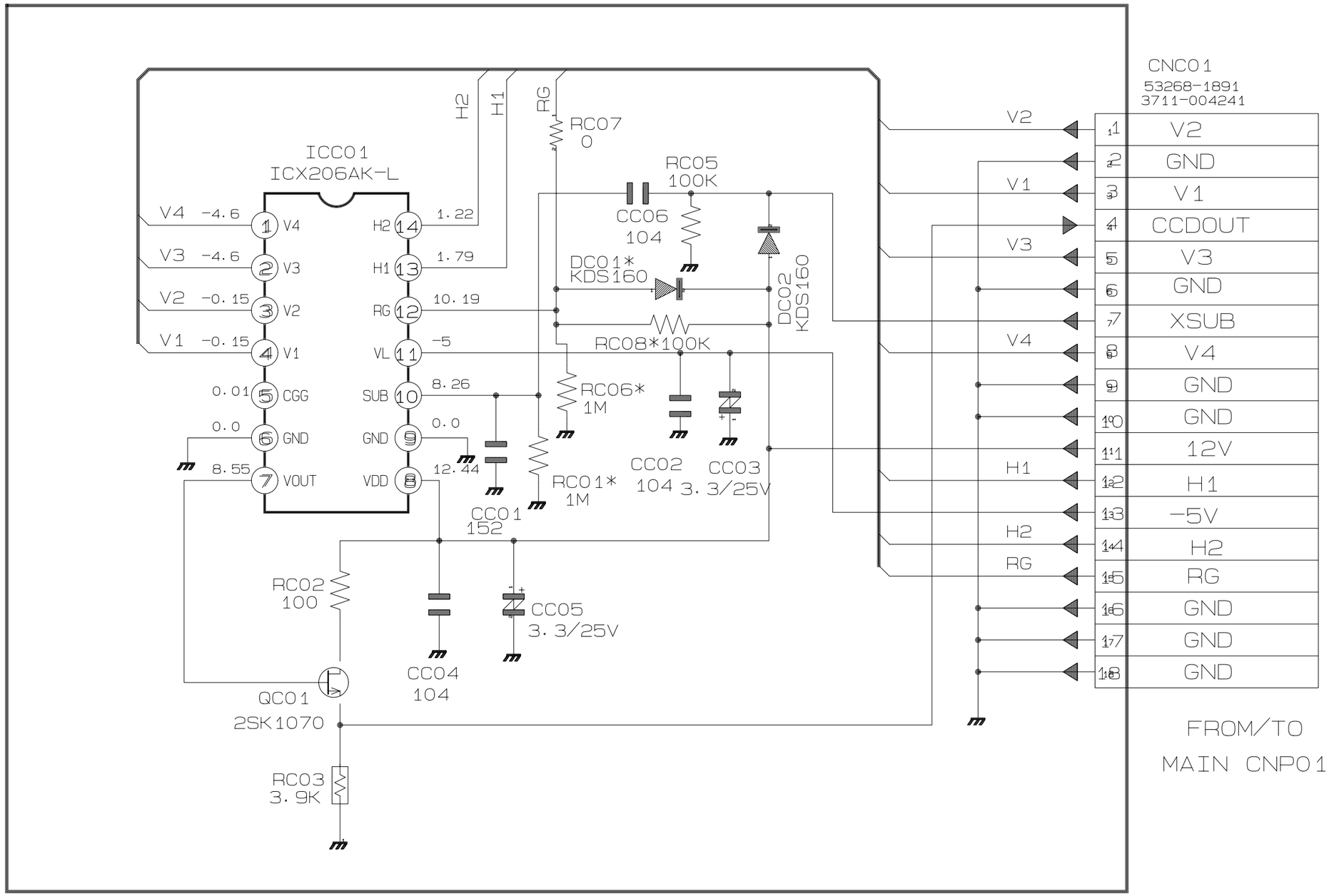
9-7 EVF


LE01
33UH
CE01
10/10V
CE02
104
RE01
68K/F
RE05
33K/F
B-LEVEL
RE06
39K/F
CE03
104
CE04
102
GAMMA
RE02
6.8K/F
LED01
NSCW100-a0S
RE22
220
RE07
1K
CNE02
52559-2090
1 TV
2 THL
3 TCL
4 VIDL
5 RENO
6 RENE
7 HCK
8 HPL
9 V_REF
10 VSS
11 VDD
12 VEE
13 VCOM
14 HLTOR
15 HODL
16 VPL
17 VCK
18 VIDH
19 PDR
20 THH
TO LCD BLOCK
DE03
RB411D-T146
DE04
KDZ2.7V
QE02
HN1B04FU
DE02
KDS160
RE24
4.7K
RE25
47K
RE29
12K
RE26
3.9K
CE05
10/16V
CNE01
54550-0690
VCR_5V 6
GND 5
EVF_12V 4
GND 3
EVF_Y 2
EVF_5V 1
FROM FUNCTION BLOCK
LE03
33UH
CE08
104
CE20
10/10V
CE07
10/10V
ICE01
MCVVQ111FB
Bias
Gamma
OK
Brightness
VBG
BL
BL_GND
MVDD
VIDHC
VIDLC
VIDL
RENO
RENE
Horizontal Skipping
SStart
SMComp
VDDH
SMGND
SMOut
VBat
32H
H_Sync
V_Sync
VH_IO_Sel
Ref_Gnd
SLEEP
HODL_Sel
OSD_In
AGND
Video_Input
Clamp
PLL_Filter
Gain
SFltr
525/625
DGND
AGND
HCK
HPL
Vref
VSS
VDD
VEE
vcom
HODL
VPL
VCK
VIDH
PDR
Vbat/2
9.0V
2.0V
5.9V
CE17
104
CE16
10/10V
CE18
104
CE19
104
RE16
10K
CE11
104
RE21
12K
CE10
104
VRE02
10K
GAIN
RE17
3.3K
CE15
1/16V
CE12
104
CE13
473
CE14
1/16V
RE19
10K
PAL
RE20
10K
NTSC
W3-PJ
2001.12.03

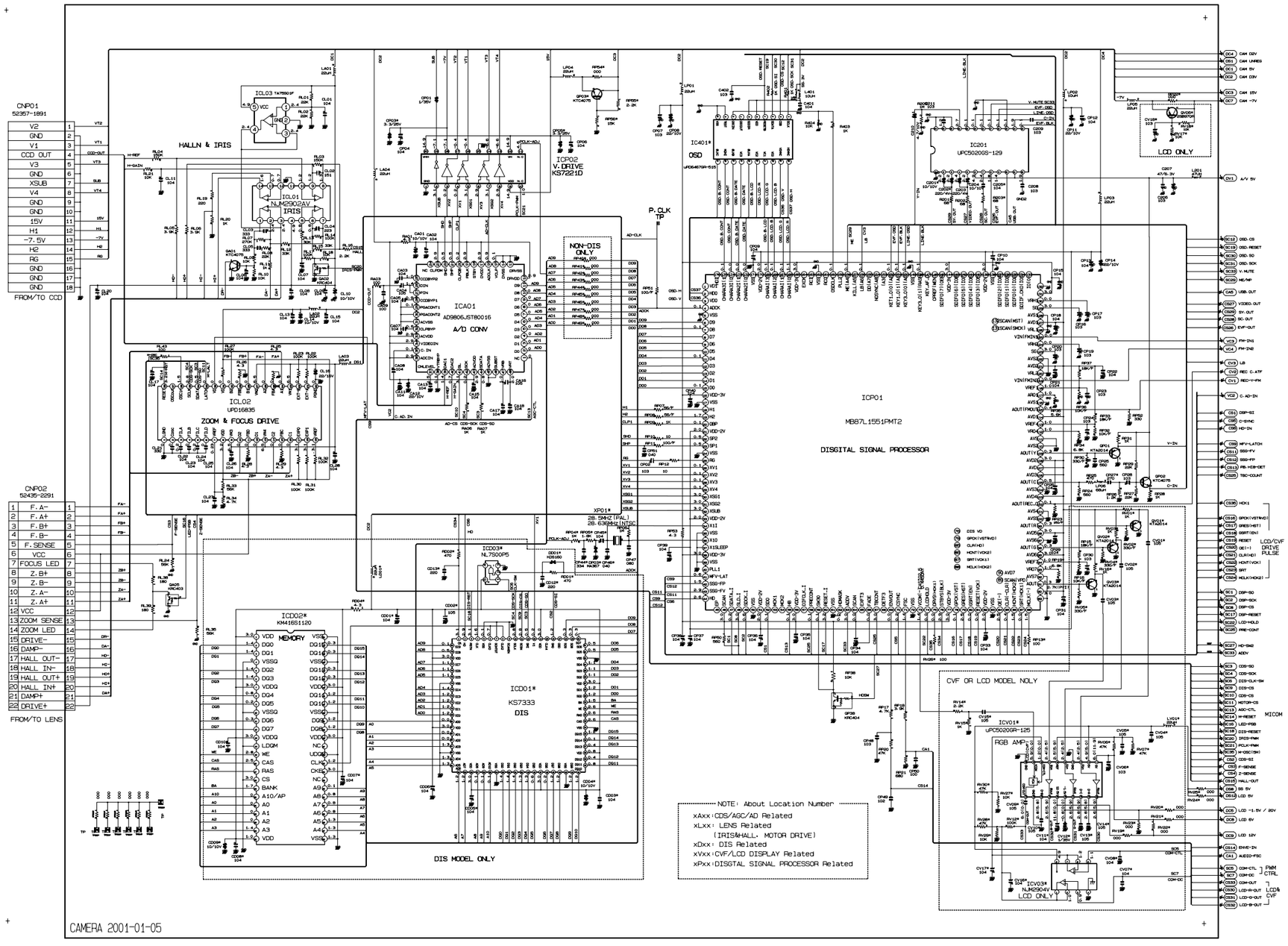
9-8 Pre-Amp


PLAYBACK SIGNAL
RECORDING SIGNAL
IC101
CXA2032Q
CXA2032Q
REC1CH
REC2CH
RFSW
1CH
2CH
AGCDET
RFAGC
BUFF
DOCDET
LOGIC
VGC
CGC
HEAD 2ND
40dB
15dB
6dB
CN101
11P-1.0MM
FE GND
FE(Y)
GND
GND
CH1 HEAD
CH1 VCC
CH1 GND
CH2 GND
CH2 VCC
CH2 HEAD
GND
TO_R/T
Q130 KRC402
Q131 HN2A01FU
Q151 KTC4075
Q152 KTC4075
Q153 KRC402
Q161 HN2C01FU
Q162 HN2C01FU
Q172 KTA2014
Q173 KRC402
Q141 KTC4075
Q142 HN2A01FU
Q101* KRC404
Q187* KRC402
Q188 HN2C01FU
Q189 KTC4075
Q186 KTA2014
Q171 HN1B04FU
LB
CV3
VC4 ATF
FM. IN2
PB AU RF
VS1
FE. ON
SV2
DV1
5V
SC27
HDSW
SV1
PB/REC
AV1
A. FM. AGC2
VC3 FM. IN1
PB Y RF
CV1
REC. Y. FM
REC. AFM
CV3 LB
CV2 REC. C. ATF
VC2 PB C RF
FROM_CAMERA PROCESS
CV1 REC. Y. FM
CV3 LB
CV2 REC. C. ATF
TO_CAMERA
VC2 C. AD. IN
VC3 FM. IN. 1
VC4 FM. IN. 2
FROM_SYSCON SERVO
SV1 PB/REC
SV2 FE. ON
DV1 VIDEO. 5V
SC27 HD. SW1
SC25 PR. CONT
SV4 A. FM. AGC2
TO_AUDIO
VS1 PB. RF
FROM_AUDIO
AV1 AFM

9-9 CCD


ICC01
ICX206AK-L
V4 -4.6
V3 -4.6
V2 -0.15
V1 -0.15
0.01
0.0
8.55
1 V4
2 V3
3 V2
4 V1
5 CGG
6 GND
7 VOUT
H2 14 1.22
H1 13 1.79
RG 12 10.19
VL 11 -5
SUB 10 8.26
GND 9 0.0
VDD 8 12.44
H2
H1
RG
RC07
0
RC05
100K
CC06
104
DC01*
KDS160
DC02
KDS160
RC08*100K
RC06*
1M
RC01*
1M
CC01
152
CC02
104
CC03
3.3/25V
RC02
100
CC05
3.3/25V
CC04
104
QC01
2SK1070
RC03
3.9K
CNC01
53268-1891
3711-004241
1 V2
2 GND
3 V1
4 CCDOUT
5 V3
6 GND
7 XSUB
8 V4
9 GND
10 GND
11 12V
12 H1
13 -5V
14 H2
15 RG
16 GND
17 GND
18 GND
FROM/TO
MAIN CNP01

9-10 CAMERA (Main)



MEMO